

## REMARKS

The above amendments and new claims are submitted for the accompanying reissue application of US 6,308,531 B1 issued October 30, 2001. The Specification has been amended so that the descriptive matter in the section entitled "BRIEF SUMMARY OF THE INVENTION" is in harmony with the claims as amended (MPEP 1302.01). The Abstract has been amended to be in harmony with the claimed invention. In addition, some previously unrecognized minor antecedent errors were found and have been corrected in the amended claims. Also, some typographical errors were discovered in the Specification and have been corrected.

Support for the amended and new claims is summarized below.

### Amended Claims:

*Claim 13* is a combination of the subject matter in original Claims 1, 11, and 13

*Claim 19* is a combination of the subject matter in original Claims 1, 16, and 19

*Claim 24* is a combination of the subject matter in original Claims 1, 23, and 24

*Claim 26* is a combination of the subject matter in original Claims 1, 16, and 26

### New Claims:

*Claim 27:* Support is found at column 8, line 45 to column 9, line 27 and in Fig. 1, particularly heat exchanger 150. Additional support found in Fig. 2 (250), Fig. 3 (150), Fig. 4 (150), Fig. 5 (150), Fig. 7, Fig. 8 (150), and Fig. 9 (150). It is seen that at least a portion of the pressurized gaseous refrigerant (162, 510) is cooled in a heat exchanger (150, 250) that does not cool the feed gas.

*Claim 28:* Support is found at column 8, line 45 to column 9, line 27 and in Fig. 1, particularly heat exchanger 150. Additional support found in Fig. 3 (150), Fig. 4 (150), Fig. 5 (150), Fig. 8 (150), and Fig. 9 (150). It is seen that

all of the pressurized gaseous refrigerant (162, 510) is cooled in a heat exchanger (150, 250) that does not cool the feed gas.

*Claim 29:* Support is found in Fig. 2 (262, 206, 222, 202) and at column 9, lines 41-45.

*Claim 30:* Support is found at column 6, lines 30-34 and at column 8, lines 45-47.

*Claim 31:* Support is found at column 6, lines 30-34; column 8, line 45 to column 9, line 27; column 9, line 64 to column 10, line 9; Fig. 1; and Fig. 4.

*Claim 32:* Support is found at column 9, lines 6-27 and in Fig. 1.

*Claim 33:* Support is found at column 7, lines 51-55.

*Claim 34:* Support is found at column 8, line 45 to column 9, line 27 and in Fig. 1, particularly heat exchanger 150. Additional support found in Fig. 2 (250), Fig. 3 (150), Fig. 4 (150), Fig. 5 (150), Fig. 7, Fig. 8 (150), and Fig. 9 (150). It is seen that at least a portion of the pressurized gaseous refrigerant (162, 510) is cooled in a heat exchanger (150, 250) that does not cool the feed gas.

*Claim 35:* Support is found at column 8, line 45 to column 9, line 27 and in Fig. 1, particularly heat exchanger 150. Additional support found in Fig. 3 (150), Fig. 4 (150), Fig. 5 (150), Fig. 8 (150), and Fig. 9 (150). It is seen that all of the pressurized gaseous refrigerant (162, 510) is cooled in a heat exchanger (150, 250) that does not cool the feed gas.

*Claim 36:* This claim recites apparatus for the the first refrigeration system and is supported at column 8, line 45 to column 9, line 5, and Fig. 1.

*Claim 37:* Support is found at column 9, lines 6-27 and in Fig. 1 (130, 150).

*Claim 38:* Support is found at column 7, lines 51-55.

As recited in their Declaration filed herewith, the inventors believe the original patent to be wholly or partly inoperative or invalid for two reasons: (1) by reason of claiming more or less than they had the right to claim in the patent and (2) by reason of other errors. A brief explanation of these reasons is presented below for the Examiner's information.

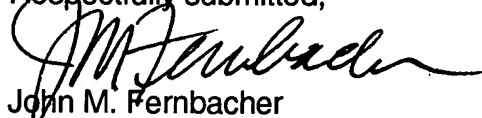
(1) The inventors believe they claimed less than they had the right to claim in the original patent, and accordingly new method claims have been added for

previously unclaimed embodiments of the invention. In addition, new apparatus claims have been added to claim previously unclaimed subject matter. As required by 37 C.F.R. 1.173 (c), information submitted above and in the accompanying Status of Claims and Support for Claim Changes indicates support for the amended and new claims in the original specification.

(2) The accompanying reissue application also has been filed to correct errors in the issued patent, which issued with the incorrect specification and claims because of an error on the part of the U.S. Patent and Trademark Office. The amendments to the original specification and claims agreed to by the Examiner and Applicants in the final stages of prosecution were not included in the issued patent, and the patent issued with the specification and claims as originally filed. Inventors filed a Request to Issue a Corrected Patent on 4 December 2001, which was received by the Office on 7 January 2002. No correction has been made as of the present reissue application filing date. Telephone calls to the Corrections Branch and to the Customer Service group indicated that the file for this case has been lost. This was confirmed by a recent telephone discussion with the Special Programs Examiner of Technical Center 3700. In view of this situation, the present reissue application includes the corrections submitted in the Request to Issue a Corrected Patent.

Timely examination of this reissue application is requested. A pending Request to Issue a Corrected Patent currently is active in the Office even though the file may be lost at present. At the recommendation of the Special Programs Examiner for Technical Center 3700, the Request to Issue a Corrected Patent will be withdrawn upon receiving the filing receipt for this reissue application.

Respectfully submitted,



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